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New Set of Claims

1. A process for the expansions of TALL lymphocytes, wherein at least 1×10^9 cells are grown in homogeneous conditions in a single fermentation unit.
- 5 2. The process as claimed in claim 1, wherein said fermentation unit is for anchorage dependent cells.
3. The process as claimed in claim 1, wherein said fermentation unit is a multi-chamber stack.
- 10 4. The process as claimed in claim 3, wherein said fermentation unit is a Cell-Factory™.
5. The process as claimed in claim 3, wherein the expansion in the homogeneous system is preceded by a process of pre - expansion in flask until obtaining a number of cells from 0.7 to 1×10^8 .
- 15 6. The process as claimed in claim 5, wherein the cellular density of the inoculum is at least 0.7×10^6 cells/ml and is preferably equal to 0.75×10^6 cells/ml and, at the harvest time, the density is lower than 2×10^6 cells/ml, preferably than 1×10^6 .
7. The process as claimed in claim 4, wherein the Cell-Factory™ is a 10-chamber unit.
8. The process as claimed in claim 1, wherein TALL lymphocytes are selected
20 from the group consisting of: TALL-104, TALL-107, TALL-103/2 cell lines, optionally genetically modified.
9. Process according to claim 8 wherein TALL are TALL-104 lymphocytes.
10. The process as claimed in any of claims 1 to 9, wherein the complete culture medium in the cell-factory amplification phase also comprises 10% max human
25 serum, preferably in the range of 4 to 6%, still more preferably of 5%, optionally foetal serum in a concentration of 0 to 10% and interleukin in a concentration of 100IU/ml.
11. The process as claimed in claim 10, wherein interleukin-2 is added to the cell culture every 48-90 hrs.
- 30 12. The process as claimed in claim 10, wherein the cell growth in the homogeneous system takes place in an antibiotic-free culture medium.

13. A process for the preparation of frozen bags of TALL lymphocytes in an amount of at least 1×10^9 cells, characterized in the fact it comprises the process according to claims 1 - 12.

5 14. Process as claimed in claim 13, wherein the bag is sealed transversally to the bag filling collet at least in two points to create at least a sampling chamber containing a cell culture volume ranging from 0.1 to 1 ml, physically separated from the culture contained in the bag to perform quality controls.

10 15. Process for the preparation of a therapeutic dose of at least 1×10^9 TALL lymphocytes in a homogeneous culture characterized in the fact it comprises the process according to claims 1 - 12.

16. The process as claimed in claim 15, wherein the lymphocytes are TALL-104.

15 17. TALL lymphocytes obtainable according to the process of claims 1 - 12 wherein said lymphocytes are characterised by a $CD3^+$ and $CD8^+$ immunologic markers expression of 98% min, preferably $\geq 99\%$, and by the $CD56^+$ marker expression of 95% at least, preferably $\geq 97\%$.

18. TALL lymphocytes according to claim 17 characterised by a biological activity, determined by a cytotoxicity assay on appropriate target cells, equal to at least 70% of the control.